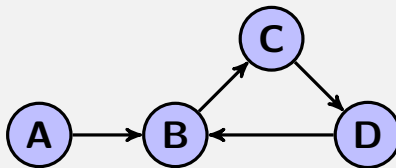


PageRank Exercises

May 9, 2016

Q.1

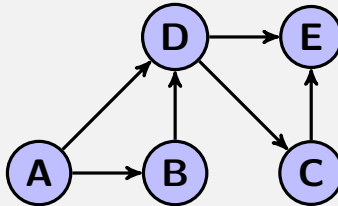
Consider the following graph with $n = 4$ nodes:



For the purposes of PageRank, assume that $d = 0.85$ and that the initial ranks of the nodes are each set at $\frac{1}{n} = 0.25$. Compute the ranks for all nodes after two further iterations (two iterations *after* initial ranks are set). You should use at least three decimal places of precision (e.g., 0.012)

Q.2

Consider the following graph with $n = 5$ nodes:



For the purposes of PageRank, assume that $d = 0.85$ and that the initial ranks of the nodes are each set at $\frac{1}{n} = 0.2$. Compute the ranks for all nodes after two further iterations (two iteration *after* initial ranks are set). You should use at least three decimal places of precision (e.g., 0.012).